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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/881,863	06/14/2001	Olivier D. Lapique	ATI-0100610	8527
34456	7590	10/29/2004	EXAMINER	
TOLER & LARSON & ABEL L.L.P. 5000 PLAZA ON THE LAKE STE 265 AUSTIN, TX 78746			PENDLETON, BRIAN T	
			ART UNIT	PAPER NUMBER
			2644	

DATE MAILED: 10/29/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/881,863

Applicant(s)

LAPICQUE, OLIVIER D.

Examiner

Brian T. Pendleton

Art Unit

2644

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
 - If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
 - If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
 - Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 14 June 2001.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-43 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 23-29 is/are allowed.
- 6) ☒ Claim(s) 1,2,4-11,14-18,20-22,30-33,35-40,42,43 is/are rejected.
- 7) ☒ Claim(s) 3,12,19,34 and 41 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1, 2, 4-11, 14-18, 20-22, 30-33, 35-40, 42, and 43 are rejected under 35 U.S.C. 102(b) as being anticipated by Connor et al, US Patent 6,011,851. In figures 2 and 4, Connor discloses a spatial audio processing method and apparatus comprising sources 1, 2, 3 (voices) and FIR filters in processors 36, 38, 40. The FIR filters inherently have a number of coefficients, which will not exceed a maximum number. The sources have different characteristics and there is a first and second level of precision accomplished by the FIR filters. Per claim 2, the FIR filters provide localization in 3-D space. As to claim 4, figure 1 and column 2 lines 39-50 disclose that the characteristic of the voices have different audio types. Per claim 5, the abovementioned section also discloses that the voices have different priority levels (foreground/background). As to claim 6, directional controller 27 is used to prioritize the voices. Per claim 7, see figure 4. Regarding claim 8, the method of Connor involves receiving first and second voices with first and second characteristic, assigning a first number of coefficients based on the first characteristic and assigning a second number of coefficients based on the second characteristic. The reference reads on the claim since it makes no mention that the first and second number of coefficients have to be different. Per claim 9, there is disclosed FIR filters 52, 56 in processors 36, 38, 40. As to claim 10, the characteristic is determined prior to receiving the

Art Unit: 2644

signals through the predetermined localization provided by the FIR filters (see figure 3). Per claim 11, the user has the option of changing the directional controller 27 at any point which reads on subsequent to the step of receiving the voice data. As to claim 13, figure 1 and column 2 lines 39-50 disclose that the characteristic of the voices have different audio types. Per claim 14, the voices have different priority levels (foreground/background). As to claim 15, the processing method of Connor comprises assigning a first number of coefficients to a first source (voice), assigning a second number of coefficients to a second source (voice), albeit the first and second number of coefficients are the same, the sum of the first and second number of coefficients no more than a predetermined fixed number of coefficients, applying first and second head related transfer functions using the spatial processors. As to claim 16, the step of determining is accomplished by directional controller 27. Per claims 17 and 18, the first and second characteristic are determined at any time using the controller 27. The first and second characteristics are foreground versus background for the sound sources. As to claim 20, the first and second characteristic can be characterized as conference call, voice mail or audio newscast (see figure 1). Per claim 21, the priority level is based on the positioning of the sound sources. Per claim 22, there is disclosed a FIR filter which does head related transfer function signal processing. Per claims 30-33, 35-40, 42 and 43, the apparatus of Connor meets the device claims.

Allowable Subject Matter

3. Claims 23-29 are allowed.

Art Unit: 2644

4. Claims 3, 12, 19, 34 and 41 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

5. The following is a statement of reasons for the indication of allowable subject matter: Independent claim 23 recites the feature that the number of coefficients assigned to a voice is based on a priority associated with the voice. This feature is not disclosed nor suggested in the prior art of record. The feature distinguishes from the prior art of record since the number of coefficients is dependent on a property of the audio signal.

Conclusion

6. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Courneau et al, US Patent 5,987,142; Lee et al, US Patent 5,450,312.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Brian T. Pendleton whose telephone number is (703) 305-9509. The examiner can normally be reached on M-F 7-4:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Forester W. Isen can be reached on (703) 305-4386. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Art Unit: 2644

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

3.2.2